Claims

1. An iris image pickup camera, comprising:

imaging optical means that has a common light axis in a region where an iris is situated, and a plurality of branch light axes branched from the common light axis, and has a plurality of focusing ranges different from one another on the common light axis for each of a plurality of branch light paths, and

imaging means for taking image data of a plurality of iris images formed through the plurality of branch light paths.

2. The iris image pickup camera according to claim 1, wherein the imaging optical means is configured such that the plurality of focusing ranges are adjacent to each, and when the iris is situated in all regions of the plurality of focusing ranges, an iris image having a size suitable for iris authentication is obtained.

3. The iris image pickup camera according to claim 1 or 2, wherein the imaging optical means has a junction of the branch light axes where the plurality of branch light axes join together, and the imaging means has an imaging element that takes image data of an iris image formed through the plurality of branch light paths in the junction of the branch light axes.

4. The iris image pickup camera according to claim 3, comprising;

shield means for selectively shielding the plurality of

branch light paths.

5. The iris image pickup camera according to claim 3, comprising;

a mirror which is held in a manner that a direction of a reflective surface can be changed, and forms an iris image through one of the plurality of branch light paths by changing the direction of the reflective surface.

6. The iris image pickup camera according to claim 1 or 2, wherein the imaging means has a plurality of imaging elements that are disposed on the plurality of branch light axes, and take image data of a plurality of iris images formed through the plurality of branch light paths.

7. The iris image pickup camera according to claim 1 or 2, wherein the imaging means has an imaging element that takes image data of the plurality of iris images formed through the plurality of branch light paths, and

the imaging optical means is configured such that the plurality of iris images are projected to different regions in the imaging element.

8. An iris imaging system, comprising;

the iris image pickup camera according to any one of claims 1 to 7, and

iris authentication means that performs authentication of an iris using the image data of the iris image.

9. A camera, comprising;

image acquisition means that acquires object images taken in a plurality of imaging modes having different focusing level characteristics to an object, and

distance determination means that determines a distance to the object based on the difference in focusing level between the object images taken in the plurality of imaging modes.

10. The camera according to claim 9, comprising;

imaging optical means that has a common light axis in a region where the object is situated, and has a plurality of branch light axes branched from the common light axis, and has a plurality of focusing ranges different from one another on the common axis for each of branch light paths of the plurality of branch light axes,

wherein the plurality of imaging modes are imaging modes in which an object image is formed through the plurality of branch light paths, so that the object image is taken.

11. An iris image pickup camera, comprising;

iris image acquisition means that acquires iris images taken in a plurality of imaging modes having different focusing level characteristics to an iris, and

lead means that leads a person to be imaged such that the iris is in at least one of the plurality of focusing ranges, each of which is corresponding to each of the focusing level characteristics of the plurality of imaging modes, based on the difference in focusing level between the iris images

acquired in the plurality of imaging modes.

12. The iris image pickup camera according to claim 11, wherein the plurality of focusing ranges are adjacently displaced in a back and forth direction, and

when a focusing level of a first iris image taken in an imaging mode corresponding to a focusing range on this side of the relevant device, which is an area where the iris is not within any of the plurality of focusing ranges, is higher than a focusing level of a second iris image taken in an imaging mode corresponding to a focusing range at a back side, the lead means leads the person to be imaged to be distanced from the device, and when the focusing level of the second iris image is higher than the focusing level of the first iris image, it leads the person to be closer to the device.

13. The iris image pickup camera according to claim 11 or 12, wherein the lead means leads the person to be imaged using at least one of display and voice.